

Serial No. 08/880,616
Art Unit No. 2126

LISTING OF CLAIMS

1. (currently amended) Apparatus in a UNIX-based environment for providing scheduling at one time of a plurality of tasks of more than one application among processes in more than one computing node, each node having a plurality of local processes, comprising:

global scheduler means comprising scheduling means for dynamically creating a global prioritized schedule of said plurality of tasks of said more than one application to allow execution of different tasks of more than one application at the same time at the computing nodes and for dynamically updating said global prioritized schedule based on application information and local process information received from said more than one computing node, and communication means for communicating said global prioritized schedule to said more than one computing node;
and

at least one local scheduler associated with each of said more than one computing node comprising means for receiving said global prioritized schedule, means for

YO997-111

-2-

Serial No. 08/880,616
Art Unit No. 2126

ascertaining which of said plurality of tasks are assigned tasks, being assigned to each of said plurality of local processes, means for prioritizing said assigned processes, and means to update a local priority list to include said assigned processes ~~in accordance with~~ based on said global prioritized schedule to allow simultaneous execution of tasks from said more than one application and means for communicating local process information to said global scheduler means.

2. (previously presented) The apparatus of Claim 1 wherein each of said more than one computing node additionally comprises at least one operating system for receiving input from said means for prioritizing and for directing said assigned processes to execute said tasks in accordance with said prioritizing.

3. (previously presented) The apparatus of Claim 2 wherein said operating system is further adapted to interleave the execution of local tasks with said tasks.

YO997-111

-3-

Serial No. 08/880,616
Art Unit No. 2126

4. (currently amended) The apparatus of Claim 2 further comprising application coordinator means for communicating application information about said plurality of tasks to said global scheduler means for use in dynamically creating and updating said schedule.

5. (original) The apparatus of Claim 2 wherein said local processes are adapted to perform tasks in parallel.

6. (canceled)

7. (canceled)

8. (currently amended) The apparatus of ~~Claim 6~~ Claim 1 wherein said global scheduler means further comprises timer means associated with said communication means to periodically effect communication of said dynamically created prioritized schedule to said local schedulers.

9. (currently amended) The apparatus of ~~Claim 6~~ Claim 1 wherein said global scheduler means includes at least one

YO997-111

-4-

Serial No. 08/880,616
Art Unit No. 2126

table comprising the identity and address for each of said at least one local scheduler.

10. (canceled)

11. (currently amended) A method in a UNIX-based computing environment for scheduling a plurality of tasks of more than one application among processes on more than at least one computing node, in a system having a global scheduler means and more than at least one computing node, each computing node having a local scheduler associated therewith and a plurality of local processes comprising the steps of:

providing application information and local process information to said global scheduler means;

dynamically creating a global prioritized schedule of said plurality of tasks, said schedule including tasks of said more than one application, based on said application information and said local process information;

communicating said global prioritized schedule to said more than at least one computing node;

YO997-111

-5-

Serial No. 08/880,616
Art Unit No. 2126

determining correspondence between said plurality of tasks and said plurality of local processes; and

dynamically prioritizing said local processes ~~in accordance with~~ based on said global prioritized schedule to allow simultaneous execution of tasks from said more than one application.

12. (original) The method of Claim 11 wherein said dynamically prioritizing comprises invoking operating system priorities to schedule tasks in accordance with said prioritized schedule.

13. (currently amended) The method of Claim 11 wherein said global scheduler means is remotely located from said ~~at least~~ more than one computing node, further comprising the steps of communicating said global prioritized schedule of tasks to said more than ~~at least~~ one computing node.

14. (original) The method of Claim 12 further comprising the step of said local processes executing said tasks in parallel in accordance with said dynamic prioritizing.

YO997-111

-6-

Serial No. 08/880,616
Art Unit No. 2126

15. (canceled)

16. (previously presented) The method of Claim 14 further comprising the steps of repeating said steps of dynamically creating a prioritized schedule of said plurality of tasks; determining correspondence between said plurality of tasks and said plurality of local processes; and dynamically prioritizing said local processes in accordance with said prioritized schedule; executing; and communicating information about execution until all tasks have been completed.

17. (previously presented) The method of Claim 14 further comprising the step of interleaving execution of local tasks with said executing of said tasks of more than one application.

18. (currently amended) The method of Claim 13 further comprising said remotely located scheduler dynamically maintaining at least one list of said ~~at least~~ more than one computing node.

YO997-111

-7-

Serial No. 08/880,616
Art Unit No. 2126

19. (previously presented) The apparatus of Claim 1 wherein said global scheduler means is adapted to automatically update said local priority list.

20. (previously presented) The method of Claim 11 wherein said dynamically creating a global prioritized schedule of said plurality of tasks comprises the steps of:

receiving task information from at least one of an application coordinator and the more than one computing node;

maintaining an activity scheduler list relating to available processes at said computing nodes and an activity priority list based on said task information.

YO997-111

-8-